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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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John R. Reader JR.

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EXAMINER

PRUCHNIC, STANLEY J

ART UNIT

PAPER NUMBER

2859

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/626,696	<b>Applicant(s)</b> READER ET AL.	
	<b>Examiner</b> Stanley J. Pruchnic, Jr.	<b>Art Unit</b> 2859	

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15-41 is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/3/03</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Claim Objections*

1. Claim 1 is objected to because of the following informalities:
  - In Claim 1, in Line 4, "the flat part of the cover" lacks antecedent basis.Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-3 and 6-14 rejected under 35 U.S.C. 103(a) as being unpatentable over GOENNER *et al.* (U. S. Patent Application Publication No. 2002/0053244 A1, hereinafter **GOENNER**) in view of **URMSTON** (U. S. Patent No. 3,929,291).

GOENNER discloses or suggests all the limitations as claimed by Applicant in Claim 1, including the limitations of a sealed sample pan 28 for use in a thermogravimetric analyzer 12 autosampler 10 comprising: a pan 28 in which the

sample is placed; and a cover which is placed on the pan and sealed to it [0010] as claimed by Applicant in Claim 1.

GOENNER as described above, does not teach a notch formed on the flat part of the cover in which the thickness of the cover is locally reduced defining a central disk portion of the cover, such that the central disk portion can be partially sheared from the cover by the application of a force on the central disk portion.

URMSTON discloses that is known in the art to provide a cover of a sealed container with a notch formed on the flat part of the cover, forming a locally reduced thickness central disk portion in order that the central disk portion can be partially sheared (Col. 5 Lines 19-21) from the cover by the application of a force on the central disk portion.

URMSTON further teaches or suggests that it is advantageous to partially shear the central disk portion so the portion remains attached to the cap.

URMSTON is evidence that ordinary workers in the field of container closures would recognize the benefit of providing a notch formed on the flat part of the cover as taught by URMSTON for the sealed sample container of GOENNER in order to retain the entire cover as a single piece when it is opened.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the sample container of GOENNER with a notch formed on the flat part of the cover in order to retain the entire cover as a single piece when it is opened as taught by URMSTON.

Regarding Claims 2-3: GOENNER does not disclose the location of the notch. URMSTON teaches the notch being formed on the top of the flat part as claimed by Applicant in Claim 2 and on the bottom of the flat part as claimed by Applicant in Claim 3. Changing the location of the notch from the top or bottom position shown by URMSTON, absent any criticality, is also considered an obvious modification of GOENNER 's apparatus that a person having ordinary skill in the art at the time the invention was made would be able to provide using routine experimentation since the courts have held that there is no invention in shifting the position of a structure to a different position if the operation of the device would not be thereby modified. In re Japikse, 86 USPQ 70 (CCPA 1950).

Regarding Claim 6: GOENNER already described the container as being sealed, but did not explicitly disclose a dedicated pressing tool. Absent criticality, using a pressing tool to seal the pan would have been obvious to one having ordinary skill in the art at the time the invention was made in order to seal the pan with a lid, for example by crimping, as is well known in the art. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to seal the cover on the sample container of GOENNER with a dedicated crimping tool in order that the tool will fit the size of the standardized size of the sample containers.

Regarding Claims 7-10: GOENNER already described the sealed sample pan 28 as hanging from the TGA balance hang-down hook 56 (See Figs. 3-5). GOENNER shows a hook 114 of formed wire attached to the sample pan, not a bail to hold the sealed sample pan as claimed by Applicant in Claims 7-10. GOENNER already

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described the ribbon 38 is preferably platinum. A bail and a hook are considered art-recognized equivalent means for hanging a sample container from a hook. It would have been obvious to one having ordinary skill in the art at the time the invention was made to hold the pan with a bail of formed wire or sheet metal since either one would function the same to provide an interface to the TGA balance hang-down hook and it would have been obvious to one having ordinary skill in the art at the time the invention was made to use platinum as suggested by GOENNER for the material of the bail since it is the same material GOENNER used for the other wire and it will react the same to the temperature and conditions in the TGA.

Regarding Claims 11-14: GOENNER does not disclose the shape of the notch. URMSTON discloses the notch is shaped in the form of a circle as claimed by Applicant in Claim 11. With respect to the shape of the notch, *i.e.*, "circle", "polygon", "oval", "teardrop", absent any criticality, is only considered to be an obvious modification of the shape of the "circle" shaped notch disclosed by URMSTON as the courts have held that a change in shape or configuration, without any criticality, is within the level of skill in the art as the particular shape claimed by applicant is nothing more than one of numerous shapes that a person having ordinary skill in the art will find obvious to provide using routine experimentation based on its suitability for the intended use of the invention. See In re Dailey, 149 USPQ 47 (CCPA 1976).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a "circle" as shown by URMSTON or one of the

modified shapes "polygon", "oval", and teardrop" in the pan cover of GOENNER in order to open the container by pressing as suggested by URMSTON.

5. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over GOENNER in view of URMSTON as applied to claims 1-3 and 6-14 above, and further in view of U. S. Patent No. 3,285,053 A (MAZIERES).

GOENNER in view of URMSTON, to summarize, is shown to teach all of the limitations as claimed by Applicant as described above in Paragraph 4 with respect to Claims 1-3 and 6-14, with the exception of material of the pan and cover as claimed by Applicant in Claims 4-5.

MAZIERES discloses that is known in the art to provide a thermal analysis apparatus with a sample pan (cup) made of platinum because of its high thermal conductivity (Col. 2, Lines 69-73).

MAZIERES is evidence that ordinary workers in the field of thermal analysis would recognize the benefit of providing a pan and cover made of platinum as suggested by MAZIERES for the pan and cover of GOENNER in order to benefit from its high thermal conductivity.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the pan and cover of GOENNER of platinum in order to benefit from its high thermal conductivity as taught by MAZIERES.

***Allowable Subject Matter***

6. Claims 15-41 are allowed.

7. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

8. The following is a statement of reasons for the indication of allowable subject matter:

GOENNER discloses an autosampler including vertical translation and rotary motion of specimen tray, hanging a specimen container on a hook, and a puncturing apparatus employing a pin to puncture a sealed specimen container. Urmston discloses a sealed container whose flat cover includes a notch of locally reduced thickness. The pin disclosed by GOENNER is designed to puncture sealed containers. GOENNER's pin, if considered a punch element, would not open the container of Urmston as intended by Urmston, since it would not apply the force to the weakened location as intended by Urmston, but instead, it would likely puncture the center of the cover, as intended by GOENNER and there would not be a means for stripping the cover from the pin. It is noted that Applicant shows on Page 2 of the instant Specification that it is critical that the sample pan is opened prior to loading the pan into a TGA.

Claims 15, 40 and 41 are allowable because the prior art of record fails to teach or fairly suggest each of the combinations including a sealed sample pan whose flat cover contains a notch of locally reduced thickness; a punch element; and a means for pressing the punch element against the top cover of the sealed sample pan, each functioning as claimed by applicant in the claims, in combination with the remaining limitations of the claims.

Regarding the method of Claim 27: The prior art of record fails to show or suggest a method for automatically opening and loading a sealed sample pan used in a thermogravimetric analyzer autosampler comprising opening the sealed sample pan by providing the sealed sample pan, having a cover, with a notch defining a central disk



portion of the cover and applying a concentrated force to the central disk portion of the cover; determining if an opening was made; loading the sealed sample pan if the opening was made; and moving to the next sample pan if the opening was not made as claimed by Applicant.

Claims 16-26 and 28-39 are allowable by virtue of their dependency upon the respective of claims 15 and 27.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited in the form PTO-892 and not mentioned above disclose related sample holders, thermogravimetric analyzer systems and related sample handling devices and methods.

- 5,165,792 (CROWE et al., cited by Applicant) discloses a TGA apparatus (Fig. 1A) including platinum sample pans suspended from a balance by means of a bale of the pan engaging a hook of the balance.
- STODDARD (U.S. Patent No. 2,847,663) discloses a force sensor for indicating the force being applied to clamping jaws.
- 5,398,556 A (LANG) discloses a device for charging a thermal analysis apparatus including vertical translation and rotary motion of specimen tray including a gripping member for moving specimen containers.
- 4,801,429 A (TORFS et al.) discloses an autosampler for transferring encapsulated samples in a thermal analysis apparatus, such as a differential scanning calorimeter. The transfer means can be a vacuum cup or nozzle, or a magnet, etc.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stanley J. Pruchnic, Jr., whose telephone number is **(571) 272-2248**. The examiner can normally be reached on weekdays (Monday through Friday) from 7:30 AM to 4:00 PM. If attempts to reach the examiner by telephone are

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unsuccessful, the examiner's supervisor, Diego F. F. Gutierrez can be reached at **(571) 272-2245**.

The **Official FAX** number for Technology Center 2800 is **(703) 872-9306** for **all official communications**.

Any inquiry of a general nature or relating to the status of this application or proceeding may be directed to the official USPTO website at **<http://www.uspto.gov/>** or you may call the **USPTO Call Center** at **800-786-9199** or 703-308-4357. The Technology Center 2800 Customer Service FAX phone number is (703) 872-9317.

The cited U.S. patents and patent application publications are available for download via the Office's PAIR. As an alternate source, all U.S. patents and patent application publications are available on the USPTO web site ([www.uspto.gov/](http://www.uspto.gov/)), from the Office of Public Records and from commercial sources.

Private PAIR provides external customers Internet-based access to patent application status and history information as well as the ability to view the scanned images of each customer's own application file folder(s).

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**Stanley J. Pruchnic, Jr.  
26 June 2004**